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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,744	01/10/2002	Yoshitoshi Kurose	FUJO 19.290	6509

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EXAMINER	
SCUDERI, PHILIP S	
ART UNIT	**PAPER NUMBER**
2153	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/043,744	KUROSE, YOSHITOSHI	
	Examiner	Art Unit	
	Philip S. Scuderi	2153	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) *3 and 14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-13 and 15-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 October 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05 February 2007 has been entered.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings were received on 12 October 2006. These drawings are acceptable.

Response to Arguments

Applicant's arguments, pages 12-15 filed 05 February 2007, have been fully considered but they are not persuasive.

Applicant argues that Dingsor (U.S. Pub. No. 2002/0129165) does not teach a destination address modification device modifying a destination address of data and a communications device that receives the data modifying the source address of a response to an address of a communication device that is an original destination.

The examiner disagrees. Dingsor teaches a destination address modification device (NAT Device 100) modifying a destination address of data (because a client device originally transmits a request packet to NAT Machine 100 and NAT Machine 100 forwards the client packet to one of Servers 200) and a communications device (Server 200) that receives the data modifying the source address of a response to an address of a communication device that is an original destination (Server 200 modifies the source address of response packets to an address of NAT Device 100). See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100 and NAT Machine 100 forwards the client packet to one of Servers 200); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).

It appears that applicant does not consider NAT Machine 100 "an original destination" as claimed. However, Dingsor teaches that a client device originally transmits a packet to the NAT Machine 100. Dingsor at [0025]. The NAT Device is therefore "an original destination" as claimed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 4, 5, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "the communications device" in lines 1 and 2. There are multiple communications devices introduced in parent claim 1 ("a communications device", "client communications device", "another communications device", "communications device that is an

original destination"). The claim is indefinite because it is unclear which communications device the limitation refers to.

Claims 4 and 5 each similarly recite the limitation "the communication device" in line 1 and are rejected for the same reason as claim 2.

Claim 7 recites the limitation "the relevant communications device." It is unclear which communications device the limitation is referring to because multiple communications devices are introduced in the parent claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 13 is directed to functional descriptive material (a computer-readable control program which imparts functionality when employed as a computer component) claimed as descriptive material per se. See MPEP § 2106.01. Functional descriptive material claimed as descriptive material per se is non-statutory. Id.

Claim Rejections - 35 USC §§ 102-103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. §§ 102-103 that form the basis for the rejections under 35 U.S.C. §§ 102-103 made in this Office action:

> A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent

> or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 6-13, and 15-17 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dingsor (U.S. Pub. No. 2002/0129165).

As previously acknowledged by the examiner, Dingsor does not expressly disclose that the servers (200) translate the source address of response packets. However, this feature is at least obvious under § 103 (and more likely implicit under § 102). The express, implicit, and inherent disclosures of a prior art reference may be relied upon in the rejection of claims under 35 U.S.C. 102 or 103. MPEP § 2112.

Connections are established between clients (30) and servers (200) through the NAT Machine (100). See Dingsor at [0024]. When the servers (200) have the appropriate translation instructions they perform outbound translation of the response packets. See Dingsor at [0026]-[0028]. "[D]epending on the application" the source address can be modified during translation operations. Dingsor at [0032]. Making the source addresses of response packets the source address of a server (200) produces unreasonable results because it is reasonable for the clients (30) to assume that the source address of a response packet is the same as the destination address of the corresponding request packet.

That Dingsor does not suggest that the clients (30) have any knowledge of the operations performed by the NAT Machine (100) suggests to the examiner that the servers (200) translate the

source address of the response packets to the original destination address of the incoming packets because failure to do so would create an unreasonable result as discussed above. Even if there is some ambiguity as to whether this feature is implicit, the feature is clearly obvious under § 103 because it would have been obvious to avoid the unreasonable results discussed above. In considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom. MPEP § 2144.01.

As to claim 1, Dingsor teaches a communications device connected to a network with a client communications device and a destination address modification device modifying a destination address of data transmitted from the client communications device to an address of another communications device, comprising:

a receiving unit (Server 200) receiving communications data (request packets) with a destination address modified by the destination address modification device (NAT Machine 100) (modified from the address of NAT Machine 100 to the address of a Server 200) [See Dingsor at [0025] (a client device transmits a packet to the NAT Machine 100 and the NAT Machine forwards the client packet to one of Servers 200).];

a source address modification unit (Server 200) modifying a source address of response data (response packets) in response to the communications data (request packets) with the destination address modified by the destination address modification device (NAT Machine 100), to an address of a communication device that is an original destination (to an address of NAT Machine 100) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).]; and

a transmitting unit (Server 200) transmitting the response data (response packets), with the source address modified by the source address modification unit (modified by Server 200) to the address communication device that is the original destination (to the address of NAT Machine 100), directly to the client communications device (Client Device 30) without passing the response data (response packets) through the destination modification device (NAT Machine 100) [Dingsor at figure 2 (translated response packets are sent directly from Server 200 to Client Device 30).].

As to claim 2, Dingsor teaches the communications device according to claim 1, wherein:

the communications device comprises an acquisition unit obtaining destination address modification information (translation instructions) transmitted from the destination address modification device (NAT Machine 100) [Dingsor at [0028]-[0029].]; and

the source address modification unit (Server 200) modifies the source address of the response data (response packets) to the address of the communication device that is the original destination (NAT Machine 100), based on the destination address modification information obtained by the acquisition unit (translation instructions) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).].

As to claim 6, Dingsor teaches an address modification device connected to a network with a communications device, comprising:

a receiving unit (NAT Machine 100) receiving communications data with a destination address (request packets) [Dingsor at [0025].];

a destination address modification unit (NAT Machine 100) modifying the destination of the communications data transmitted from the communications device to an address of another

communications device [See Dingsor at [0025] (a client device transmits a packet to the NAT Machine 100 and the NAT Machine forwards the client packet to one of Servers 200).];

a modification unit (Server 200) modifying a source address of response data (response packets) in response to the communications data (request packets) with the destination address modified by the destination address modification unit (destination address), to an address of a communication device that is an original destination (NAT Machine 100 is the original destination of request packets) and transmitting address modification information to a communications device with a modified address (NAT Machine 100 transmits translation instructions to Server 200, which has an address that was modified by NAT Machine 100) [See Dingsor at figure 2, [0025] (a client device originally transmits a packet to the NAT Machine 100 and the NAT Machine forwards the client packet to one of Servers 200).], wherein

the communications device with the modified address (NAT Machine 100) transmits the response data (response packets), with the source address modified by the source address modification unit (by Server 200) to the address of the communication device that is the original destination (to the address of NAT Machine 100), directly to a client communications device without passing the response data through the address modification device [Dingsor at figure 2 (translated response packets are sent directly from Server 200 to Client Device 30).].

As to claim 7, Dingsor teaches the address modification device of claim 6, wherein:

the modification unit (NAT Device 100) transmits address modification information (translation instructions) of the communications data to the relevant communications device (Server 200) when receiving a send request for the address modification information [See Dingsor at [0029] (NAT Machine 100 sends translation instructions upon receiving response packets from the Servers).].

As to claim 8, Dingsor teaches the address modification device according to claim 6, wherein:

said modification unit (NAT Machine 100) transmits information indicating the destination address before modification as modification information (translation instructions) [Dingsor at figure 2].

As to claim 9, Dingsor teaches the address modification device according to claim 6, wherein:

said modification unit (NAT Machine 100) adds information indicating the destination address (translation instructions) before modification to a data section of the communications data and transmits the data (before modification to any data packet) [See Dingsor at [0029].].

As to claim 10, Dingsor teaches a communications method in a network comprised of a destination address modification device and a plurality of communication devices, comprising the steps of:

receiving communications data (request packets) with a destination address modified by the destination address modification device (NAT Machine 100) [See Dingsor at [0025] (a client device transmits a packet to the NAT Machine 100 and the NAT Machine forwards the client packet to one of Servers 200).];

modifying a source address of response data (response packets) in response to the communications data with the destination address modified by the destination address modification device (in response to the request packets), to an address of a communications device that is an original destination (to an address of NAT Machine 100) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).]; and

transmitting the response data (response packets), with the source address modified in the source address modifying step to the address of the communication device that is the original destination, directly to a client communications device without passing the response data through the destination address modification device [Dingsor at figure 2 (translated response packets are sent directly from Server 200 to Client Device 30).].

As to claim 11, Dingsor teaches the method of claim 10 further comprising the steps of:

requesting the destination address modification device (NAT Machine 100) to transmit address modification information (translation instructions) [See Dingsor at [0029] (NAT Machine 100 sends translation instructions upon receiving response packets from the Servers).]; and

receiving the destination address modification information (translation instructions) from the destination address modification device (NAT Machine 100) and modifying a source address of data in response to communications data with an address modified by the destination address modification device [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).].

As to claim 12, Dingsor teaches the method of claim 10 further comprising the steps of:

modifying a source address of response data (response packets) to the source of the communications data with a destination address modified by the destination address modification device (with an address of NAT Machine 100) based on the modification information (translation instructions) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).].

As to claim 13, Dingsor teaches a computer-readable communications control program performing control of communications in a network comprised of a destination address modification device and a plurality of communications devices to enable a computer to implement functions, the functions comprising:

receiving communications data (request packets) with a destination address modified by the destination address modification device (NAT Machine 100) [See Dingsor at [0025] (a client device transmits a packet to the NAT Machine 100 and the NAT Machine forwards the client packet to one of Servers 200).];

modifying a source address of response data (response packets) to the communications data (request packets) with the destination address modified by the destination address modification device (modified by NAT Machine 100) to an address of a communications device that is an original destination (NAT Machine 100) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).]; and

transmitting the response data (response packets), with the source address modified in the source address modifying step to the address of the communications device that is the original destination, directly to a client communications device without passing the response data through the destination address modification device [Dingsor at figure 2 (translated response packets are sent directly from Server 200 to Client Device 30).].

As to claim 15, Dingsor teaches a computer-readable storage medium which stores a program for enabling a computer to implement functions, the functions comprising:

receiving communications data (request packets) with a destination address modified by a destination address modification device (NAT Machine 100) [See Dingsor at [0025] (a client device

transmits a packet to the NAT Machine 100 and the NAT Machine forwards the client packet to one of Servers 200).];

modifying a source address of response data (response packets) to the communications data with the destination address modified by the destination address modification device to an address of a communications device that is an original destination (to an address of NAT Device 100) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).]; and

transmitting the response data (response packets), with the source address modified by the source address modification unit (Server 200) to the address of the communication device that is the original destination (to the address of NAT Machine 100), directly to a client communications device without passing the response data through the destination address modification device [Dingsor at figure 2 (translated response packets are sent directly from Server 200 to Client Device 30).].

As to claim 16, Dingsor teaches a communications system in which an address modification device for modifying an address of communications data received from another communications device and a plurality of communications devices for transmitting and receiving data in response to the communications data with a modified address are connected through a network, comprising:

an address modification device, further comprising:

a transmitting and receiving unit (Server 200) receiving communications data with a destination address (request packets) [Dingsor at figure 2.];

a destination address modification unit (Server 200) modifying an address of the communications data, to an address of another communications device (NAT Device 100) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).],

wherein at least one of the plurality of communications devices includes:

a source address modification unit (Server 200) modifying a source address of response data (response packets) to an address of a communication device that is an original destination (to an address of NAT Machine 100) based on destination address modification information (translation instructions) transmitted from the address modification device (NAT Device 100) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).]; and

a transmitting unit transmitting the response data (Server 200), with the source address modified by the source address modification unit to the address of the of the communication device without passing the response (response packets) data through the address modification device (NAT Device 100) [Dingsor at figure 2 (translated response packets are sent directly from Server 200 to Client Device 30).].

As to claim 17, Dingsor teaches a communication system in which an address modification device for modifying an address of communications data received from another communications device and a plurality of communications devices for transmitting and receiving data in response to the communications data with a modified address are connected through a network, comprising:

an address modification device, comprising:

a receiving unit (NAT Machine 100) receiving communications data with a destination address [Dingsor at figure 2.];

a destination address modification unit (NAT Machine 100) modifying a destination address of the communications data (request packets) transmitted from the communications device to an address of another communications device (Server 200) [See Dingsor at [0025] (a client device

transmits a packet to the NAT Machine 100 and the NAT Machine forwards the client packet to one of Servers 200).]; and

a modification unit (Server 200) modifying a source address of response data (response packets) in response to the communications data with the destination address modified by the destination address modification unit (in response to request packets), to an address of a communication device that is an original destination (NAT Machine 100 is the original destination of request packets) and transmitting address modification information to a communications device with a modified address (NAT Machine 100 transmits translation instructions to Server 200, which has an address that was modified by NAT Machine 100) [See Dingsor at figure 2, [0025] (a client device originally transmits a packet to the NAT Machine 100 and the NAT Machine forwards the client packet to one of Servers 200).], and

each of a plurality of communications devices, comprising:

an acquisition unit (Server 200) obtaining destination address modification information (translation instructions) transmitted from the address modification device (NAT Machine 100) [Dingsor at figure 2.];

a source address modification unit (Server 200) modifying a source address of the response data (response packets) to the address of the communication device that is the original destination (to the address of NAT Machine 100), based on the destination address modification information obtained by the acquisition unit (translation instructions) [See Dingsor at [0025] (a client device originally transmits a packet to the NAT Machine 100); Dingsor at [0028], [0032] (outbound translation includes translation of the source address).]; and .

a transmitting unit (Server 200) transmitting the response data (response packets) with the source address modified by the source address modification unit to the address of the

communication device that is the original destination (translated to the address of NAT Machine 100), directly to the client communications device without passing the response data through the address modification device [Dingsor at figure 2 (translated response packets are sent directly from Server 200 to Client Device 30).].

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dingsor (U.S. Pub. No. 2002/0129165).

As to claims 4 and 5, Dingsor teaches the communications device according to claim 1, further comprising a plurality of communications processing units. Dingsor at figure 2.

Dingsor does not expressly disclose assigning a process to a relevant communications processing unit of a plurality of communications processing units based on communications ports added to the communications data.

The claimed communications processing units read on applications that respond to requests sent by a client. It was common in the art for servers to select applications to respond to client requests based on ports specified in the requests so that the servers could properly map requests to the appropriate applications. It would have been obvious to enable the servers to do so here for at least the same reason(s).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip S. Scuderi whose telephone number is (571) 272-5865. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PS

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